

RESPIRATORY PROTECTION FAQs

FREQUENTLY ASKED QUESTIONS

PRODUCT: NORTH COMPACT AIR® 200 SERIES POWERED AIR-PURIFYING RESPIRATORS

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Compact Air CA200 Series on Worker



Compact Air CA200 Series

GENERAL QUESTIONS ABOUT POWERED AIR-PURIFYING RESPIRATORS

Q: What is a PAPR?

A: PAPR are initials for Powered Air-Purifying Respirator. It is, as its name indicates, an air-purifying respirator that has a battery powered blower.

OSHA Definition: An air-purifying respirator that uses a blower to force the ambient air through air-purifying elements to the inlet covering.

Q: How does a PAPR work?

A: A powered air-purifying respirator uses a blower powered by a battery to pull ambient air through cartridges, filters or a canister. A constant flow of clean air is delivered to the facepiece or hood.

The blower can be belt mounted or facepiece mounted. The battery is always mounted on the belt. When the blower is mounted on the belt it can be separate from the battery, or they can be integrated into a single case. The battery may be rechargeable or non-rechargeable, supplying power for 4 to 8 hours depending on the model.

Q: Are cartridges or filters included with the Compact Air Blower/Battery Assembly?

A: No. Rather than limiting you to only one PAPR type, North offers a simple 1-2-3-4 ordering system.

1. Cartridges &/or filters
2. Blower/battery assembly
3. Facepiece or head cover
4. Select your breathing tube

This allows you to customize the North Compact Air 200 Series PAPR – providing you with the right system for your job site.

North offers an array of HEPA filter, chemical cartridge and cartridge/filter combinations.

Refer to this FAQ's section on Filters & Cartridges for more information.

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GENERAL QUESTIONS ABOUT NORTH COMPACT AIR 200 SERIES PAPR

Q: What are the differences between the Compact Air® and Compact Air 200 Series PAPR?

A: All versions of the North Compact Air® PAPR (CA101, CA101D, CA102 and CA102D) are stand alone units. The CA101 and CA101D can only be used with a loose fitting hood while the CA102 and CA102D can only be used with the tight fitting facepiece. The North Compact Air® 200 Series PAPR can be used with both loose fitting hoods and tight fitting facepieces.

Q: How is the Compact Air 200 Series able to adjust the flow for loose fitting hoods and tight fitting facepieces

A: When using the loose fitting hoods with the straight breathing tube, the CA200 will automatically offer 6 CFM (170 lpm) of ambient air. When using the tight fitting hoods with 'Y' breathing tube, two magnets that are attached to the breathing tube will alert the CA200 to change the flow to 4 CFM (115 lpm). Without this magnet, the electronics will not adjust the flow to the proper setting.



Magnet on "Y" breathing tube

Q: Can I adjust the flow of the North Compact Air 200 Series PAPR?

A: No, North has preset these units so they deliver more than the OSHA minimum as a safety factor. The exact CFM delivered will vary depending on the cartridges and filter combination that is used and how quickly they load with contaminants.

- OSHA minimum for tight fitting facepieces is 4 CFM
- OSHA minimum for loose fitting hoods is 6 CFM

GENERAL BATTERY QUESTIONS

Q: What type of battery is used with the North Compact Air 200 Series PAPR?

A: Lithium ion.

Q: Do I need to charge my battery before using the North Compact Air 200 Series PAPR for the first time?

A: Yes. The North Compact Air 200 Series PAPR is shipped with the battery partially charged.

Q: How quickly can I recharge my battery?

A: The charging time for a fully discharged battery is approximately eight (8) hours or less. Check that the battery is sufficiently charged before use.

Q: How do I tell when the battery needs to be charged?

A: The battery alarm will alert the user as to when the battery is low and needs to be recharged.

Q: How do I know when the battery is fully charged?

A: When the green light on the charger is lit. The red light is lit when the charger is still recharging.

Q: What is the service life of the battery?

A: Battery service life is dependent on many conditions including environment, contaminant concentration and age of battery. However, a minimum of 8 hours is typical if the battery is fully charged when you first start to use the unit. To maximize battery life change filters before they reach the fully clogged state.

Q: What are the advantages of a Lithium Ion battery compared to Nickel Metal Hydride (NiMH) battery?

A: Lithium Ion batteries have several advantages: They have a higher energy density and lower discharge rate than most other types of rechargeable batteries.

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	AUDIBLE	VIBRATORY	VISUAL
10% Battery Life Remaining	Four (4) Beeps	Vibration for four (4) seconds at 30 second intervals	CHECK BATTERY LED light will change from green to red
5% Battery Life Remaining	Continuous beep until battery expires		CHECK BATTERY LED light remains red
Blocked or Clogged Filters	Continuous beep	Vibration for three (3) seconds at 10 second intervals	CHECK FILTER LED light will change from green to red

GENERAL CHARGER QUESTIONS

Q: Is a charger included with the Compact Air Blower/Battery Assembly?

A: Yes. A single unit charger with trickle charge feature is included with complete assembly.

GENERAL ALARM QUESTIONS

Q. Does the Compact Air 200 Series PAPR have alarms?

A. Yes. The Compact Air 200 Series PAPR has three (3) alarms, vibratory, audible and visual.

Battery and Flow Alarms

The Compact Air 200 Series PAPR is equipped with “CHECK BATTERY” and “CHECK FILTER” alarms.

Battery Alarm

1. At 10% of battery charge: There will be three alarms, an audible, a vibratory and a visual signal when the battery has 10% charge remaining. There will be a series of 4 beeps along with 4 seconds of vibration at an interval of 30 seconds. The “CHECK BATTERY” LED on top of the blower unit will change from “green” to “red”
2. At 5% of battery charge: The audible beep will change from intermittent to continuous. The LED will remain “red”

Filter Alarm

1. Blocked or clogged filters: You will hear a continuous beep along with a vibration for 3 seconds at an interval of 10 seconds. The “CHECK FILTER” LED on top of the blower unit will glow “red” and remain this way.
2. End of service for gas and vapor cartridges: No alarm will sound when gas and vapor cartridges reach the end of their service life. A cartridge change schedule based on the contaminant concentration(s), worksite temperature and relative humidity must be implemented.

GENERAL COMFORT AND WEIGHT QUESTIONS

Q: How comfortable and lightweight is the North Compact Air 200 Series PAPR?

A: You will find this unit very comfortable and lightweight, especially when compared to similar style PAPRs.

The Compact Air 200 Series PAPR features a comfort back pad to distribute weight evenly. The complete unit as it would be worn is only 4 to 6 lbs depending on the filters or cartridges used and backpad configuration.

Q: Can I adjust the flow of the North Compact Air 200 Series PAPR?

A: No, North has preset these units so they deliver more than the OSHA minimum as a safety factor. The exact CFM delivered will vary depending on the cartridges and filter combination that is used and how quickly they load with contaminants.

- OSHA minimum for tight fitting facepieces is 4 CFM
- OSHA minimum for loose fitting hoods is 6 CFM

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GENERAL FACEPIECE AND HOOD QUESTIONS

Q: What North facepieces can be used with the North Compact Air 200 Series PAPR?

A: The 5500 & 7700 Series half masks, and the 5400 & 7600 Series full facepieces can be converted to a PAPR. This includes the 5400 & 7600 facepieces with welding adapter.

Q: What hoods and head covers can be used with the North Compact Air 200 Series PAPR?

A: Primair loose fitting head covers, Primair Plus and Primair FM hoods are available today.

NORTH COMPACT AIR 200 SERIES CARTRIDGES AND FILTERS, SERVICE LIFE & SHELF LIFE

Q: What filters and cartridges are available for use with the North Compact Air?

A: The North Compact Air 200 Series PAPR offers several chemical cartridges and filter combinations

Filter

40HE High Efficiency Particulate Air-Purifying (HEPA) Filters

Chemical Cartridges

4001 Organic Vapor

4003 Organic Vapor, Chlorine, Hydrogen Chloride, Sulfur Dioxide, Hydrogen Fluoride, Chlorine Dioxide, Hydrogen Sulfide

4004 Ammonia / Methylamine

Chemical Cartridge / Filter Combination

4001HE Organic Vapor with HEPA filter

4003HE Organic Vapor, Chlorine, Hydrogen Chloride, Sulfur Dioxide, Hydrogen Fluoride, Chlorine Dioxide,

Hydrogen Sulfide with HEPA filter

4004HE Ammonia / Methylamine with HEPA filter

Q: How many hours of use can I get from the North Compact Air?

A: Service life is dependent on environmental conditions. However, a minimum of 8 hours is typical if the battery is fully charged when you first start to use the unit. The exact time of service may vary.

OSHA & CSA REGULATIONS PERTAINING TO PAPRs

Q: What are the Assigned Protection Factors (APF) for Powered Air Purifying Respirators (PAPR)?

A: Assigned Protection Factors for PAPRs are higher than comparable air-purifying respirators (APR), and the same as comparable supplied air respirators (SAR).

Q: How much CFM (Cubic Feet per Minute) does the North Compact Air 200 Series PAPR deliver to the facepiece or hood?

A: The amount of air will vary depending on the filter or cartridge used, and whether the filter is new or near the end of its service life.

Tight fitting facepieces: 4 CFM minimum is required by OSHA.

Hoods and other loose fitting head covers: 6 CFM minimum as required by OSHA

Q: Do workers who wear a PAPR need to be fit tested?

A: **Tight fitting facepieces:** Yes, if the workers are at or above the contaminant's Permissible Exposure Limit (PEL). Below the PEL use of a respirator is voluntary and fit testing is not required.

Hoods and other loose fitting head covers: No, fit testing is not required.



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NIOSH APPROVAL INFORMATION (NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY & HEALTH)

Q: Is the North Compact Air 200 Series PAPR NIOSH approved?

A: Yes. The Compact Air is NIOSH approved for use with North's 5500, 7700, 5400 and 7600 Series air-purifying masks, and for use with North's Primair Series hoods and head covers.

TROUBLESHOOTING NORTH COMPACT AIR 200 SERIES PAPR

The PAPR fails to turn on

- Battery is not charged. Recharge the battery or use a new battery that is fully charged
- The switch on the battery is in the "off" position. Push the switch to turn it on.
- The power cord between the battery and blower is not connected or is broken. Reconnect the cord. If it still does not work and you suspect the plug or cord is damaged, replace the blower.

The PAPR supplies insufficient airflow

- The battery is near the end of its charge. Recharge the battery or use a new battery that is fully charged
- The air-purifying elements (filters or filter cartridge combination) have loaded with particulates. Replace your filters and or cartridges with new ones.
- The breathing tube is blocked or leaking. Check the tube for blockage. If you suspect the breathing tube is leaking replace with a new one.

Q. What if the North Compact Air 200 Series is not offering the proper flow?

A. If you are not receiving the proper flow when using the tight fitting facepieces, check to see that both magnets are connected to the end of the breathing tube that is inserted into the blower unit.

Q. What if the magnets are missing from the breathing tube?

A. Replace the breathing tube with another tube that has both magnets. Without the magnets, the electronics in the CA200 will not adjust to the proper flow setting.

North Safety Products should perform all other repairs.

Prior to return shipment contact North Customer Service at 800-430-4110 to obtain a Return Goods Authorization (RGA) number. Clearly mark the RGA Number on the shipping container and return the product to us at the following address.

Honeywell Safety Products

2000 Plainfield Pike
Cranston, RI 02921

All products must be cleaned and "decon"taminated prior to return shipment and must be shipped prepaid.

For a complete list of FAQs visit our website at Honeysafety.com.

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